discloses two memories 15V and 15A for copying the first section of the data stream and a second section of the data stream and a MUX for selecting between the first and second memory locations to produce an interleaved output signal and selecting between the data stored in the first memory location and data stored in the second memory location. Examiner states, however, that Kondo fails to disclose that the step of selecting further includes the step of selecting first data from the first memory location while transferring second data from the third memory location to the first memory location. Examiner states that official notice that a dual-port memory has concurrent read/write capabilities and that therefore would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kondo to include a dual-port memory to provide selecting first data from the first memory location while transferring second data from the third memory location to the first memory location. Examiner goes on to state that with respect to claim 13, Kondo fails to disclose the claims step of selecting third data from the second memory location while transferring fourth data from the third memory location to the second memory location but again takes official notice that since a dual-port memory has concurrent read/write capabilities, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Kondo to include a dual-port memory to provide selecting third data from the second memory location while transferring a fourth data from the third memory location to the second memory location.

Applicants respectfully disagree with Examiners conclusions for the following reasons. First, Applicants have amended claims 12 and 13, not to alter their scope, but merely to improve the flow of claims 12 and 13 and render them more readable. Examiner states that Kondo discloses two memories 15V and 15A for copying the first section of the data stream and a second section of the data stream. Applicants can find no basis in the cited reference for concluding this. For example, Kondo states that the V1 FIFO 13VA receives a video signal

from hard disk drive 12 and outputs a transport stream TVA of the video signal of a program that is currently being broadcast. Similarly audio FIFO (A1 FIFO) receives and outputs a transport stream TAA of an audio signal SA corresponding to the transport stream TVA of the video signal. Thus, V1 FIFO 13VA receives the video stream and A1 FIFO 13AA receives the audio stream. In a similar fashion, V2 FIFO 13VB and A2 FIFO 13AB receive video and audio streams respectively corresponding to a different program (i.e. "a commercial message that will be broadcast next"). Switch 14V merely selects either the first program from V1 FIFO 13VA or the second program from V2 FIFO 13VB. Similarly, switch 14A selects either the audio of the first program (from A1 FIFO 13AA) or the audio from the second program (i.e. from A2 FIFO 13AB). FIFO 15V merely holds and outputs the selected video stream, and FIFO 15A holds and outputs the appropriate audio stream. Multiplexer 16 multiplexes the video signal transport stream and the audio signal transport stream. Thus, Kondo does not store data of a first section of the data stream and data from a second section of the data stream in a first memory location. Kondo stores video in one memory location and audio in another memory location. Kondo does not copy a first section of the data stream to a second memory location nor does it copy a second section of the data stream to a third memory location since, as stated previously, Kondo does not divide the data stream into first and second sections. Finally, Kondo does not select between the second and third memory locations to produce an interleaved output signal. In contrast, Kondo merely selects whether a first program or a second program is transmitted. Therefore, it is respectfully submitted that Applicants' amended independent claim 12 is not obvious in view of the Kondo reference.

Examiner goes on to state that he takes official notice that a dual-port memory has concurrent reading/writing capabilities and that therefore it would be obvious to one having ordinary skill in the art to modify Kondo to include the dual-port memory to provide selecting

the first data from the first memory location while transferring second data from a third memory location. It is difficult to understand how Examiner can take this position when Kondo does not even suggest the need for simultaneously reading and writing. Kondo merely refers to a FIFO buffer. Thus, Applicants respectfully submit that Examiner has not established a prima facie case of obviousness. Examiner has the burden of providing factual support for any prima facie conclusion of obviousness. To reach a proper determination of obviousness under 35 USC § 103, Examiner is required to step back in time and determine that the claimed invention as a whole would have been obvious at that time to a person of ordinary skill in the art just before the invention was made. Examiner cannot rely on Applicants' disclosure to reach this determination. Impermissible hindsight must be avoided, and the conclusion of obviousness must be reached on the basis of facts in the prior art.

Examiner is well aware of the three basic criteria necessary to establish a prima facie case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references of combine reference teachings. Second, there must be a reasonable expectation of success, and third, the prior art reference or references must teach or suggest all the claim limitations. The teaching or suggestion to make the combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure. In Re Vaeck, 947 Fed. 2d 488, 20 USPQ 2d, 1438.

It is known that the rational to modify the prior art does not have to be expressly stated in the prior art, but may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law; however, Examiner must present a convincing line of reasoning supporting the rejection. There is no suggestion or motivation in the references that would render these elements obvious.

Therefore, Examiner's rejection must be based on knowledge generally available to one of ordinary skill in the art. However, Examiner has given no indication that these limitations are impliedly contained in the prior art or that is may be reasoned from knowledge generally available to the skilled practitioner or established by scientific principles or legal precedent. Examiner merely concludes that one of ordinary skill in the art would utilize a dual-port memory to provide concurrent read/write capability even though this feature is not suggested by Kondo. It is respectfully submitted that this conclusion was based on Applicants' disclosure, and that Examiner has used improper hindsight in formulating his objection under 35 USC § 103. Examiner cannot simply reach conclusions based on his own understanding or experience or on his assessment of what would be basic knowledge or common sense. Rather, Examiner must point to some concrete evidence to directly support such findings. In Re Zurko, 258 Fed. 3rd 1379 (2001).

In view of the above, it is respectfully submitted that Applicants' independent claim 12 is not obvious in view of the Kondo reference. Claim 13 is believed to properly depend from amended independent claim 12 and is believed allowable therewith.

II. PRIOR ART CITED NOT RELIED UPON

The prior art cited but not relied upon has been reviewed and is not believed to form the basis of a valid rejection of the claims taken singly or in combination.

III. ALLOWED CLAIMS

Examiner has indicated that claims 1, 3-8 and 15-17 are allowed and such allowance is respectfully solicited.

IV. CONCLUSION

It is respectfully submitted that the above-identified application, as amended, is now in condition for allowance and such allowance is therefore earnestly requested by the Applicants. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact Applicants' attorneys at (602) 952-4399.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge deposit Account No. 13-4771 for any fee which may be due.

Respectfully submitted,

Vincent B. Ingrassia
Reg. No. 25,732

Dated 10/30/02

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO THE CLAIMS

12. (Twice Amended) A method of interleaving a data stream, comprising the steps of:

storing the data stream including storing data of [the] a first section of the data stream and data of [the] a second section of the data stream in a [third] first memory location;

copying [a] the first section of the data stream to a [first] second memory location;

copying [a] the second section of the data stream to a [second] third memory location; and

selecting between the [first] second and [second] third memory locations to produce an interleaved output signal and selecting between data stored in the [first] second memory location and data stored in the [second] third memory location, wherein the step of selecting further includes the step of selecting first data from the [first] second memory location while transferring second data from the [third] first memory location to the [first] second memory location.

13. (Amended) The method of claim 12, wherein the step of selecting further includes the step of selecting third data from the [second] third memory location while transferring fourth data from the [third] first memory location to the [second] third memory location.